

IN THE CLAIMS

Please cancel Claims 56 - 94 without prejudice or disclaimer, and amend the claims as follows:

Claims 1 - 35 (canceled).

36. (currently amended) A process for ~~production of~~ **producing** clavulanic acid, or a salt thereof, comprising:

(a) ~~fermentation of fermenting~~ a clavulanic acid-producing species of Streptomyces in a fermentation broth containing sources of assimilable carbon, nitrogen, and phosphorus, wherein ~~at a starting stage of fermentation~~ the concentration of **assimilable** phosphorus **in the fermentation broth** is less than 0.15% w/v; and,

(b) ~~after the starting stage of fermentation and during a growth phase of the fermentation, adding a further source of assimilable phosphorus to maintain the concentration of growing the species at an assimilable~~ phosphorus **concentration between of 0.0015% and to less than 0.15%**, and

(c) **subsequently** isolating **[[the]]** clavulanic acid, or a salt thereof, from the fermentation broth.

37. (currently amended.) **[[A]] The process [[as]] of claimed in** Claim 36, wherein the concentration of **said** assimilable phosphorus is allowed to decrease after cessation of **[[the]] said** growth phase.

38. (currently amended) **[[A]] The process [[as]] of claimed in** Claim 36, wherein the concentration of **said** assimilable phosphorus is allowed to decrease after

a fermentation time of 40 hours.

39. (canceled).

40. (canceled).

41. (currently amended) **[[A]] The process [[as]] of claimed in** Claim 36, wherein the concentration of **said** phosphorus **at the starting stage of upon** fermentation is about 0.008%.

42. (currently amended) **[[A]] The process [[as]] of claimed in** Claim 41, wherein no source of assimilable phosphorus is **added used** after a fermentation time of 40 hours.

43. (currently amended) **[[A]] The process [[as]] of claimed in** Claim 36, wherein ammonia is not the sole **said** source of assimilable nitrogen.

44. (currently amended) **[[A]] The process [[as]] of claimed in** Claim 43, wherein **[[the]] said** source of assimilable nitrogen does not include **said** ammonia.

45. (currently amended) **[[A]] The process [[as]] of claimed in** Claim 36, wherein the **said** source of assimilable phosphorus is sodium phosphate, potassium phosphate, sodium dihydrogen phosphate, potassium dihydrogen phosphate, disodium hydrogen phosphate, dipotassium hydrogen phosphate, or a mixture thereof.

46. (currently amended) **[[A]] The process [[as]] of claimed in** Claim 45, wherein **[[the]] said** source of assimilable phosphorus is sodium dihydrogen phosphate.

47. (currently amended) **[[A]] The process [[as]] of claimed in** Claim 36, wherein **[[the]] said species** microorganism is *Streptomyces clavuligerus*,

Streptomyces jmonjinensis, Streptomyces katsurahamanus, or Streptomyces sp. P6621.

48. (currently amended) **[[A]] The process [[as]] of claimed in** Claim 36, wherein **[[the]] said** fermentation is a fed batch fermentation, with intermittent or continuous addition **use** of **[[the]] said** source of assimilable phosphorus.

49. (currently amended) **[[A]] The process [[as]] of claimed in** Claim 36, wherein **[[the]] said** source of assimilable carbon is selected from the group consisting of glycerol trioleate, glycerol, and corn starch, and **[[the]] said** source of assimilable carbon is optionally **added used** during **[[the]] said** growth phase of **[[the]] said** fermentation.

50. (currently amended) **[[A]] The process [[as]] of claimed in** Claim 49, wherein the concentration of **said** carbon is between 1.5% and 7.5%.

51. (currently amended) **[[A]] The process [[as]] of claimed in** Claim 36, wherein **[[the]] said** source of assimilable nitrogen includes soy bean flour or ammonium sulfate, and **[[the]] said** source of assimilable nitrogen is present in **[[the]] said** fermentation broth ~~at the starting stage of the upon~~ fermentation and ~~is added~~ during **[[the]] said** growth phase of **[[the]] said** fermentation.

52. (currently amended) **[[A]] The process [[as]] of claimed in** Claim 51, wherein the concentration of **said** nitrogen is between 0.5% and 15%.

53. (currently amended) **[[A]] The process [[as]] of claimed in** Claim 36, wherein the volume of **[[the]] said** fermentation broth is greater than 10^4 liters.

54. (currently amended) **[[A]] The process [[as]] of claimed in** Claim 53, wherein the volume of **[[the]] said** fermentation broth is 6×10^4 liters.

55. (currently amended) A fed batch fermentation process for ~~the production of~~ producing clavulanic acid, or a salt thereof, comprising:

(a) ~~fermentation of fermenting~~ a clavulanic acid-producing species of Streptomyces in a fermentation broth containing sources of assimilable carbon, nitrogen, and phosphorus,

(b) ~~after the starting stage of fermentation and during a growth phase of the fermentation, adding further sources of assimilable carbon and nitrogen and adding a further source of assimilable phosphorus to maintain the concentration of growing the species at an assimilable~~ phosphorus concentration between of 0.0015% and to less than 0.15%, and

(c) ~~subsequently~~ isolating ~~[[the]]~~ clavulanic acid, or a salt thereof, from the fermentation broth.

Claims 56 - 94 (cancelled).